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ABSTRACT

In an effort to meet all federal, state, and accreditation requirements, as well as accountability demands from business and industry, Iowa's Des Moines Area Community College (DMACC) developed a 3-year faculty-driven process to develop a plan for assessing student outcomes. The first step in the process was the formation of a 22-member faculty competency-based education cadre, whose responsibilities included developing a plan for writing course competencies and providing training for writing course and program competencies. The cadre included a steering committee charged with reviewing proposals, disseminating information regarding the process to faculty members, and troubleshooting problems. Workshops and training sessions were organized to define terminology and write competencies and subcompetencies. The second phase involved the distribution of completed competencies to students in course syllabi, while the third phase involved the following four steps to assess the competencies: (1) the pre-assessment of student competency levels; (2) instructor and student assessments of courses and their competencies; (3) assessments of programs and program competencies; and (4) evaluation of DMACC graduates. The final phase consists of an ongoing effort to incorporate findings from assessment activities into course and program competencies. The resulting plan does not restrict what faculty can teach, but merely describes the minimum that must be taught in each course. (TGI)

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ED 393 506

# Designing and Implementing a Faculty-Driven Assessment Process at Des Moines Area Community College, Ankeny, Iowa

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DESIGNING AND IMPLEMENTING A FACULTY-DRIVEN ASSESSMENT PROCESS
AT DES MOINES AREA COMMUNITY COLLEGE, ANKENY, IOWA
NCA PRESENTATION -MARCH 1996
BY

Mike Delaney, Sociology Instructor
Kathy Crall, Business and Office Instructor
Jolyne Ghanatabadi, Ph.D., Dean Curriculum & Scheduling

I. INTRODUCTION

On the behalf of my fellow presenters and myself I would like to welcome each of you here today for our presentation: DESIGNING AND IMPLEMENTING A FACULTY-DRIVEN ASSESSMENT PROCESS. Today we wish to share with you the process we used for developing our assessment plan, components of our plan, and both positive outcomes and barriers we have experienced. Our assessment plan was an evolving process that was created in a step by step process that took three years to develop. Since it was a step-by-step process we implemented each step as we went along.

My name is Jolyne Ghanatabadi and I am Dean of Curriculum & Scheduling. I am also an NCA consultant-evaluator and this past year was an assessment plan reviewer. It was my office that had the responsibility for facilitating the development, implementation and monitoring of DMACC's Student Academic Achievement Assessment Plan.

To give us a better understanding of our audience I would like to ask a few questions and have you raise your hand in response. How may of you are community college faculty? How many are community college administrator? How many of you do not work in a community college?

Because the process we are explaining today was and continues to be a faculty driven process I am pleased to introduce two

faculty members who played a major role in the development and implementation of the assessment process at DMACC. Mike Delaney is a sociology instructor on our Ankeny Campus. Mike will be explaining the process used for developing our assessment model and the reactions of arts and science faculty. Kathy Crall is programchair and instructor in Office Technology and Business Administration at our Urban Campus. Kathy will explain in more detail the assessment process and the reaction of vocational faculty.

A summary of our presentation including a copy of our assessment Model is found on page 203 of A Collection of Papers on Self-Study and Institutional Improvement you received when you registered.

II. DMACC OVERVIEW

Before we discuss our faculty-driven assessment process I would like to give you a brief overview of our college. Des Moines Area Community College was established in 1966 and is the largest of fifteen community colleges in Iowa with an enrollment of over 10,000 full-time equivalent credit students. The area served by the College has 22% of the state's population. We have five campuses. The main campus is located in Ankeny. Other campus locations are as follows: The Urban Campus which is located in Des Moines is eight miles southwest of the Ankeny Campus. The Boone Campus is 30 miles northwest of the Ankeny Campus, The Carroll Campus is located 95 miles northwest of the Ankeny Campus, and our newest campus Newton is 30 mile east of the Ankeny Campus. The

college has 265 full-time credit instructors and over 325 adjunct instructors per semester. We offer 43 two-year degree programs, 24 diploma programs and 48 specialist certificates. The average student age is 28 with 60% of the student body being female.

III. TRIGGERS

Assessment has always been an integral part of the instructional process at DMACC. However a more systematic process became necessary based upon new requirements as a result of Perkins legislation, Iowa Vocational Standards Act, Iowa Accreditation and Program Evaluation Guideline, NCA assessment requirements and accountability demands from business and industry.

The assessment process we developed met all requirements and also included college specific goals related to assessment. The Iowa Vocational Standards Act and NCA assessments requirement were the two major requirement that shaped how we approached assessment at DMACC.

I believe you all know about the requirement regarding assessment by NCA. So I will explain briefly the Iowa Vocational Standards Act. The act required all secondary schools provide or have access to vocational training in four out of six vocational pathways (agriculture, business, health, home economics, industrial technology, and marketing). The Act also required vocational courses be competency-based in both secondary schools and community colleges and there be signed articulation agreements between high schools and at least one postsecondary institution for

each pathway.

Most DMACC courses had objectives or competencies written, but they were not necessarily the same across campuses for the same course. DMACC therefore saw this as an opportunity for faculty to get together and come to an agreement as to what it is the student was expected to learn.

As we embarked on the development of course and program competencies and the assessment process we faced two major challenges. 1. How to develop a systematic process 2. How to get faculty, administration and students to buy-in to the concept and process. It was mutually agreed upon by faculty and administration that in order for assessment to be successful, it had to be a faculty-driven process.

The process of writing competencies and preparing the development of a formalized assessment process began in the fall of 1991. To help meet the challenges mentioned earlier, a committee was formed called the Competency-based Education Cadre. The Cadre had twenty-two faculty members representing all instructional areas from all campuses, along with two continuing education coordinators, three administrators and a curriculum specialist. The Cadre was given the charge to develop a plan for writing competencies and development of an assessment plan and to facilitate and serve as a resource person in the instructional area they represent. This cadre was lead by a steering committee composed of five faculty members, a curriculum specialist, and two administrators. Two years later the Cadre was expanded to include

eleven additional faculty members and two additional deans primarily representing college transfer instructional areas.

The Cadre defined Competency-Based Education as a systematic approach aimed at improving the teaching/learning process which addresses the questions: What do we want our students to be able to know and do? How can we best ensure that they will be able to achieve those outcomes? How do we know when they are achieved?

The Benefits we saw for having competencies are:

- They form the framework for a course of instruction.
- They acquaint the learners with knowledge, skills, and attitudes expected of them upon completion of the course or program of study.
- They assist the instructor in organizing and sequencing subject matter.
- They indicate the type and extent of activities required for successfully carrying out learning.
- They provide a basis for evaluating both the learners' achievement and the effectiveness of the course.
- And they convey to the various stakeholders and the public what is to be taught and learned.

Competencies were written for all credit and non-credit courses and for all programs. In the credit courses we went one step further and required that subcompetencies for each competency also be developed. A subcompetency states what the learner is expected to know or do to achieve the competency. Kathy will explain our process for writing competencies in more detail later.

As the Cadre worked, a process was initiated which would facilitate the communication of the results of the cadre's work to all faculty. The results of the cadre's meetings were communicated

to other faculty and administrators on a regular basis to permit review, reaction, feedback, and possible modification.

The Cadre also developed DMACC's Educational Improvement Model to assess student academic achievement which is linked to the college's mission and goals. It is the college's mission to offer quality programs to prepare or retrain students for employment, advancement or transfer to a four year college or university. Assessment efforts were designed to identify the competencies and subcompetencies students were to achieve and to determine the extent to which students develop the technical, transfer, and general education competencies throughout the curriculum; demonstrate mastery at the end of their program of study and utilize these skills and abilities after graduation.

The model features a process which incorporates aspects of total quality management for continuous improvement through constant self review and analysis. Mike and Kathy will discuss how the model was developed and aspects of the model itself in more detail in a few minutes.

VI. RELEASE TIME/COMPENSATION

Because administration knew that writing competencies and developing an assessment plan would be a time-consuming process and that if it was going to be successful there had to be incentives for the faculty leaders. It was decided to give release time to all faculty members on the cadre. For the first two years Cadre members received release time equal to a 3 credit course. Steering committee members received release time equal to two three credit

courses for the first two years and release time equal to a 3 credit course the third year. Since limited funding was available for the first year the Cadre agreed to pay a faculty member $25 per course for writing competencies. No funds for writing competencies were available after the first year.

Mike will next explain in more detail the development of our assessment model and reactions of arts and science faculty.

NCA Presentation Mike

I will be discussing four aspects of our assessment process; 1) The importance of our first workshop, 2) Some of the resources that were helpful to us, 3) The development of a continuous improvement model, 4) The reactions of the Arts and Science faculty.

IV FIRST WORKSHOP

As Jolyne mentioned, our cadre( define in Webster's as a group of capable trainers of others) was comprised of twenty-two faculty members, two continuing education co-ordinators, three administrators and a curriculum specialist. Since the process was to be faculty driven it was very important to have broad based representation so that no group felt left out. There was representation of programs, disciplines and campuses.

Our first meeting took place off-campus. Since the site was neutral with regard to campus loyalties and out of the everyday work setting it created an egalitarian atmosphere. Two consultants were brought in from outside the college to help develop a assessment plan. Employing consultants helped to define the situation as an open-ended, egalitarian process without a pre-determined result. Our consultants helped us establish some agreement about goals and terminology.

I would like to pass along some points that you might find useful. One of our consultants said, "It is easier to act your way into thinking than to think your way into acting." Throughout the process of developing our assessment plan we heard a chorus

of reasons about why we could not make progress on this front. We had to sort out the valid concerns from the defensive rationalizations. We took the time to listen to all concerns in our committee and in meetings with faculty in our areas. We scheduled workshops and meetings to allow full discussions of the plans. We listened to the same arguments over and over. But at various points decisions had to be made and implemented. Of course each step taken put us at a new vantage point from which to survey the landscape and make a choice about our next step. Our consultant's point seems valid because if we would have waited for complete consensus we would never have moved forward at all. I think that the time to make a decision comes at some point after one ceases to hear any new arguments and the majority of those concerned are growing less sympathetic to individual arguments against change. We decided that the first step toward an assessment plan needed to be writing of course competencies.

Another interesting point made by one of the consultants was that competencies should be, "criteria referenced rather than norm referenced." I believe there are benefits to criteria referencing; 1) Students are not necessarily placed in competition with one another. 2) Students can cooperate with out threatening their own grades. 3) Everyone can do well, or poorly, winners and loosers do not have to be created. 4) Also, in a world of heightened awareness about discrimination criteria referenced assessment of students is more defensible then relative assessment.

Our consultants helped us develop an understanding of the

terminology that we might use in our plan. It was decided to use the term competencies rather than the term "outcomes". "Outcomes" may have been rejected because of resistance in the community to the concept in K-12 education or possibly because at that first meeting the focus was mainly upon vocational education and the faculty in those areas tended to be more comfortable with the idea that their teaching produces a well defined, fixed measurable result best indicated by the term competency. The term "outcome" may have been more acceptable to the Arts and Sciences faculty, (more about this later).

Another point that may be of use to some of you is this. One of our consultants suggested that we,"design down from the ultimate outcomes." The committee took that to mean that we should start with the college's mission statement to ensure that we had consistency. We decided to take the published mission of the college as a starting point and construct an assessment plan consistent with the mission statement.

I believe the committee members came away from that first meeting somewhat assured that the process of competency development and assessment would be faculty driven. The faculty were told repeatedly that this was the intent. The organization of the cadre with broad representation seemed to indicate that this was true. The fact that we started "from scratch" indicated that the agenda had not been set.The fact that faculty would be released from some of their teaching duties also supported the notion that faculty input was valued. Of course empowerment creates obligation. Many faculty were not interested in either.

V RESOURCES

As Jolyne mentioned a Steering committee of eight was formed to get into the details of the process. Five of the members were faculty. This group helped to gather information to aid our efforts. An ERIC search of the literature on assessment was conducted and the results distributed. Books on assessment were assembled and Mary Walton's book, The Deming Management Method was helpful as we began to develop our conceptual model.

Our efforts were informed by attendance at a number of conferences on assessment. Jolyne attended a Classroom Assessment Techniques Workshop conducted by Cross and Angelo. Six cadre members attended the AAHE Assessment conference, some members attended the NCA meetings such as this one, I attended an American Sociological Association Workshop on assessment at Alverno College, and our steering committee visited Eastern Iowa Community College to learn from their progress on an assessment plan.

It became clear to the cadre members during our early meetings that we had considerable expertise within the college from instructors in programs that had to face external accreditation in the past. Our Nursing, Respiratory Therapy, Human Services and other programs were quite familiar with the process of developing and using competencies and assessment techniques. An instructor from Respiratory Therapy was a very valuable member of the Steering Committee.

I would like to pass along some points made at a conference sponsored by the American Sociological Association at Alverno college. One of the presenters at the meeting, Novella Keith said, "We cannot afford to reject the need for public accountability. We are wise to let the public know that we are willing to look at ourselves and try to improve." Those words struck me as wise then, in the Spring of 1992, and I think that they are even more meaningful today. We had a speaker give the same message at an all-college in-service a few weeks ago. It seems to me that our faculty are quite responsive to that message today.

Dr. Keith also spoke of "assessment as conversation" contrasting the intimidating notions of measurement, instrument development and technical requirements with the relatively less threatening ideas of changing the academic culture through conversation about what we intend to do and how we should do it. Much of the benefit of our assessment development process thus far has come from faculty being brought together from our five campuses to simply talk about what they do with their students. She contended that talking with one another about what we do is assessment.

Dr. Deming, whom I will get to in a minute in more detail has preached that it is absolutely necessary for organizations to bring in new knowledge. We found his advice to be true with regard to our assessment efforts.

VI ASSUMPTIONS

Based upon NCA and State of Iowa guidelines we listed a set of assumptions that we said would guide the process of creating an assessment plan. We found these guidelines to be helpful and reassuring to our faculty. Helpful in explaining what we were about and reassuring in explaining what we were not about. (TRANSPARENCY-ASSUMPTIONS)

(read down list)

VII Model Development

As mentioned above our assessment process was impacted by some of the ideas of Dr. Deming and other contributors to Total Quality Management. After two of our members had attended an American Association of Higher Education Conference they presented the idea of incorporating a continuous improvement model into our planning. Others in the group had read some of Deming's writing and had seen a number of videotapes about him and his seminars. Therefore the idea was well received by the Steering Committee members.

Dr. Deming is credited by the Japanese for being of greatest help to them in their rise to economic competitiveness. He started his efforts in Japan in the 1950's. By the early 1980's many American corporations were beginning to learn from him also. By 1984, Motorola, Ford, Federal Express, IBM, Westinghouse, Disney, Corning, Hewlett-Packard and the U.S. Navy were embracing his strategy. By 1991 it was a major theme at higher education conferences.

Dr. Deming said that the core concept in his continuous improvement model came from the Shewh1art Cycle. (TRANSPARENCY-

SHEWHART CYCLE) The Shewhart Cycle has been simplified into a Plan, Do, Check, Act, Plan Again continuous loop model. We took these terms and applied our assessment steps to the cycle.

The model evolved over the course of a year. We initially designed a graphic showing student assessment at different stages in the student's career; before DMACC, during DMACC, and after DMACC. However they were represented as components of student assessment rather than parts of a continuous assessment of an educational system.

The final (or should I say current) version of the model (TRANSPARENCY--DMACC MODEL)
depicts assessment as a total organizational responsibility in which student assessment is a source of data upon which planning decisions can be based.

I will briefly mention the steps now. Kathy will go into greater detail in a few minutes.

PLAN

In this phase, the cadre developed a philosophy, defined terms, established frames of reference (benchmarks) and created a process to be used for writing competencies. Competencies were written with input from cadre members, steering committee members, colleagues, advisory committees, our curriculum specialist, deans, and other stake-holders (interested parties).

DO

In this step competencies were put in syllabi and distributed to students. They were loaded into the mainframe for easy access by anyone on campus.

Check

This is the measurement step. To know if our efforts are having an effect we need to know a good deal about our students backgrounds, such as their performance in classes as assessed by various measurements, their performance along the academic or career road while at DMACC and their performance in transfer institutions, on the job or in life in general after they leave DMACC.

ACT

Analyze the data by comparing against past performance, reference groups or other benchmarks. Put the information into understandable forms such as charts, graphs, tables etc. This should be a continuous process so the data will accumulate year after year allowing longitudinal analysis

PLAN (AGAIN)

The results of the analysis is than to be used by decision makers at all levels to make appropriate changes. The assumption is that the decisions will be driven by quality considerations.

Des Moines Area Community College's Educational Model for Continuous Quality Improvement, developed and implemented by

faculty, has linked student academic achievement, program evaluation, and strategic planning. It has also brought about improved communications by faculty between the campuses and lead to improvements in the teaching/learning process.

Arts and Sciences Response

The Arts and Science faculty see themselves as engaged in a process of instruction which has as its purpose the intellectual growth of the student. They want the student to grow in all directions, to become mentally flexible, adaptive, generalists, able to take advantage of any occupational opportunity because of their grounding in language, humanities, mathematics and science. The concept of competency was a hurdle to overcome in discussions of our goals with many of the Arts and Sciences faculty. The concept strikes most of us as restrictive, limiting what we can talk about and expect from our students.

The humanities instructors see competencies as having the potential to limit creativity. Some of our Art, Philosophy and Literature instructors cringe at the thought of trying to quantify the real objectives of their courses. The real goals in their courses; thinking, creativity, wondering, questioning, debating and challenging are not easily expressed in competencies.

Another difficulty was getting instructors in an area to come together and reach agreement about what ought to be covered in a course. The tendency is to focus upon the minimums and to be quite general. Issues of theoretical perspective should be left

alone when trying to clarify course content. I would also recommend not trying to force common text books, syllabi, student evaluation techniques or teaching style.

The focus here should be upon this question, "Can you sit down with your colleagues and agree upon the most important elements of each course." If the answer is,"no!" then the question becomes ,"Why not?"

When asked the question, " Why are we doing this?" What should one say? One answer is because of state and NCA requirements. This is not a good answer because the response to that will be, " O.K. we will go through a bureaucratic procedure that will take a lot of time but accomplish nothing.

The other answer is, "Because it is the right thing to do. We need to spell out more clearly what we teach in our classrooms." The follow up question is, " Why?" These are some of the answers we have talked about:

1) If we do not spell out what we are doing in our classroom someone else might try to do it for us.

2) We must do this so that we can have greater consistency from class to class with the same acronym (title). Students do not see it as right for some students to learn more than others in the same course.

3) How can we defend sequencing our courses if we do not clarify the content of each? Do you have pre-requisites? What is the point if the content of each course in a sequence is not clarified?

4) Transfer institutions need to know what is covered in

the courses we teach. Granted, in many cases, especially in Math and Sciences the content is very well defined. However, in these courses there may be differences in levels of proficiency expected of the students.

5) If we do not clarify the content of our courses how do we defend ourselves against low content and quality offerings that are being made available to our students through alternative delivery methods? How do we argue about quality if we refuse to define it?

The Arts and Sciences faculty eventually came together by disciplines and defined what they think are the most important competencies in each course. In some cases they merely translated what was in their syllabi or outlines into competency statements. Most of our faculty have been using well prepared syllabi and outlines for twenty years. Once they understood how similar there course descriptions were to competency statements most faculty produced the competencies in a short time.

The greatest resistance came from two poles. There were the Math and Science faculty who have a very clear, standard course outline who seemed insulted by the idea of having to re-phrase what everyone knows is expected in their courses. At the other pole were some humanities instructors who saw the competency effort as a threat to their academic freedom. Academic freedom does not allow an instructor to do whatever he or she likes in a course. An academic should feel responsibilities to the department and the discipline to maintain standards. In our own institution, departmental and disciplinary ties are very weak.

This is especially true among our part time instructors.

Some arguments I have heard against competencies were: "We should assess student abilities up front and place them in proper classes." "The college should hire good full time instructors who know what should be taught in each course." "Subscribing to competencies is giving credence to the idea that an unqualified instructor can teach a class properly if given a list of competencies." "Faculty will be required to teach to a test and thereby undermine what liberal education should be about." "These competencies will go on a shelf and never be looked at again" "Publishing competencies gives the student a basis for bringing lawsuits against the college or faculty."

We discussed the arguments pro and con for over a year. Finally when faculty saw that it had to be accomplished they took the time to put them together. After the competencies were in place it was gratifying to hear my colleagues referring to the utility of competencies in discussions of standards. There is now a sense that there is a bottom line of minimum coursework under any acronym.

Now, I would like to introduced the best organized member of our team, Kathy.

## TRANS. 1 - COMPETENCY-BASED EDUCATION - THE PROCESS

Introduction to Competency Based Education:

Our process began with the formation of a Competency Based Education Cadre. The individuals on the Cadre represented one or more vocational programs, an area of the liberal arts curriculum, or continuing education. The committee was heavy with vocational/technical representation at the beginning, but later eleven more representatives from the Arts and Sciences areas were added.

Each member of the Cadre was assigned one or more programs or areas of responsibility. For example, my areas were the Medical Technology, Office Technology, Legal Technology, and Legal Assistant Programs. The Cadre met approximately once a month for the first year and then less frequently. Cadre members had release time for one and one-half years.

The first year, the Cadre members had the responsibility to:

- Assist programs in developing proposals for writing course competencies.
- Provide assigned programs with training on writing of course competencies.
- Facilitate communication between and among faculty on all five campuses that teach in a specific program area.
- Serve as a resource person for programs that request information about competency based curriculum.
- Attend cadre meetings; provide input from assigned programs.

In addition to the Cadre, we had a Steering Committee. The Steering Committee was composed of five faculty from the Cadre, a curriculum specialist, and a vice-president. For the 1st two years, we met approximately once every two weeks. This committee had release time for three years. The Steering Committee had the additional responsibilities to:

- ◊ Review proposals - make recommendations for additions, etc.
- ◊ Disseminate information regarding the process to other Cadre members.
- ◊ Serve as a troubleshooter with deans, and as a liaison between faculty and administration.

- ◊ Chair one of the subcommittees --
- ◊ staff development
- ◊ on-going development of competencies
- ◊ evaluation

- ◊ Review competencies/subcompetencies and recommend revision if needed.
- ◊
- ◊ Although not listed as a responsibility, the Steering Committee faculty members sometimes had to serve as a mediator in their area.

**Plan Stage of Cycle -**

**Three Year Plan:**

One of the first projects of the Steering committee was the development of a Three-year plan:

***TRANSPARENCY: THREE-YEAR PLAN HEADINGS***

A plan was developed to set timelines to cover the areas of
Staff Development
Competency Development
Evaluation/Assessment

For each area after the goals were defined, the audience to whom the goal would be presented was determined. For example, would the presentation be made to the Cadre members, the Academic and Executive Deans, New faculty, adjunct faculty, all faculty, students, counselors, advisors, deans, prospective students, training consultants, or all administration.

The method of delivery was decided. Some methods used were meetings, written instructions, materials packet, letters from appropriate deans, department meetings, individual or group work, cadre feedback, meeting with deans, focus groups, or written survey instrument. In some instances a combination of two or more methods were used.

A deadline was set as to when each goal would be completed. Each area was broken down to include definite time goals within the three-year period.

The final part of this process was defining who was responsible for the completion of each goal. For example, would the responsibility for completion be the steering committee, Academic and Executive Deans, the faculty, course instructor, and so on.

***Trans: Example of a Goal***

An example, under the section Staff Development for Year 2:

Goal - "To conduct faculty training on assessment techniques"
Audience - Faculty
Method - Department meetings
When - Spring and fall semester
Who - Steering Committee

At the meetings of the Steering Committee, progress toward accomplishing the goals was monitored. Over the course of the three years of the Competency Development Plan, all goals were accomplished either on target or shortly thereafter. This instrument was very effective in keeping our assessment plan on task.

PROCESS FOR WRITING COMPETENCIES

The writing of competencies was a faculty-driven process. We did not have a step-by-step plan at the start. We determined steps and revisions as needed. As was stated earlier, one of the first meetings of the cadre was a two-day workshop where one of our major accomplishments was agreeing upon the definitions of some key words. I will go through the definitions quickly, because I feel it is important for you to understand this terminology as we used it in our writing/assessment process.

Those definitions were as follows:

***Trans: Terms listed.***

Competency (outcome) - The knowledge, skills and attitudes students are expected to know or demonstrate at the completion of a course. A competency statement is a general statement that contains the following three parts: 1. An action verb, 2. An object that receives the action, and 3. One or more relevant qualifiers if necessary.

Subcompetency - A subcompetency takes a competency and subdivides it in order to identify what the student must "know" or be able to "do" in order to achieve the competency. A subcompetency statement has the same three parts as a competency.

Competency-based education - A systematic approach aimed at improving the teaching/learning process which addresses the questions: What do we want our

students to be able to know and do? How can we best ensure that they will be able to achieve those outcomes? How do we know when they are achieved?

Program competency - A broad, general statement explaining the outcomes resulting from a student's successful completion of a program of study.

Stakeholder - A "stakeholder" is anyone inside or outside DMACC who cares about the institution's performance.

Using this basic terminology, we went on to define our Competency Based Education as:

***Trans: DMACC Competency Based Education with 3 arrows***

Evaluation/Assessment
- Students
- Faculty
- Administration
- Programs
- Employers
- Transfer Institutions

Staff Training/Development
- Why are we doing this?
- How do we do this?
- How do we use this?
- How do we communicate effectively with faculty/staff/students?

Instructional Delivery
- Syllabus content
- Teaching
- Curriculum content
- Sequencing of courses
- Develop entrance competencies
- Develop exit competencies

The Program Competencies, Course Competencies and Subcompetencies would include all three areas.

We stated our purpose for going to competency based education as:
- Improve instruction
- Improve student learning
- Improve student retention

Consistency of course delivery
Identify basic skills needed to enter course or program
Accountability
Communication with stakeholders
NCA/other accreditation agencies

Later, a Glossary defining approximately 35 of the most frequently used terms was distributed.

After the two-day workshop, one of next meetings was a training session coordinated by Jolyne and myself for members of the Cadre on the writings of competencies and subcompetencies.

Several handouts regarding the Cognitive Domain - concerned with information and knowledge, and the Affective Domain -concerned with Attitudes and Values, feelings and emotions were distributed and discussed. One handout in particular based on Bloom's Taxonomy was used to categorize the line of competencies. In the Cognitive Domain, they could be categorized as knowledge, comprehension, application, analysis, synthesis, or evaluation. Those in the Affective Domain were categorized as to receiving, responding, value, organization, and characterization. The Psychomotor Domain was broken into the areas of perception, set, guided response, mechanism, and complex overt response.

For a beginning exercise, we used the story of the Three Little Pigs. We divided the members into small groups. Each individual was given a list of competencies/subcompetencies. We told them there were five competencies and they needed to identify the five competencies and the subcompetencies that would come under each competency.

Then we had the group do an exercise using Job Seeking Skills. For this exercise, they needed to define the level of each competency and subcompetency. The competency had to be a higher-order than the subcompetencies under it.

As a follow-up to this training, workshops were offered on each campus on how to write competencies and subcompetencies. We were now ready to really begin our process of making the over 1,000 credit courses offered at DMACC competency-based.

Our process first began with the writing of competencies/ subcompetencies for the vocational/technical programs. Instructors volunteered or were assigned to courses to write the competencies. In some cases, the assigned instructor met with instructors from all campuses and they wrote the

competencies/subcompetencies as a group. In other cases, the assigned instructor wrote the competencies on their own.

***TRANS: Planning Form for Writing Competencies/Subcompetencies***

For this process, we had a PLANNING FORM FOR WRITING COMPETENCIES/SUBCOMPETENCIES. This form included the Program/Discipline and page number at the top. Then each course acronym/number was listed, each campus on which the course was taught was circled (This was helpful for follow-up later to determine if everyone who should have had the opportunity to review the competencies for a particular course had been given that opportunity.), the instructor responsible for development was listed, and the completion date (month & year) was noted. The form was reviewed and dated by the appropriate dean and the cadre member with responsibility for the area.

This form was used not only by those writing the competencies but also by the cadre member as a follow-up guide to the courses in their areas of responsibility.

When the competencies for a given course or courses were completed, the Competency/Subcompetency Completion Form was submitted.

***TRANS: Competency/subcompetency Completion Form***

(Go through Competency/Subcompetency Completion Form).

Course competencies must be submitted on the approved Course Information Form (WHITE).

Validation could be done by an Advisory Committee, use of National Standards, state curriculum guidelines, textbook listed objectives, articulation agreement, and so on.

***TRANS: Course Information Form - OFFC337***

This is an example of a Course Information Form. These can be accessed through the Local Area Network by Program acronym and then by course number for all courses.

[Briefly go through the form.]

To update the form, the following procedures would be used.

To change the course description or competencies, every full-time faculty who teaches the courses has an opportunity to have input into and discuss the proposed changes. Then each full-time faculty might sign off on the change.

To change textbooks/supplementary materials, or etc., this can be done through a committee process within the department. The committee has representatives from each campus.

The Routing processing for the Forms was:

Program chair
Program chairs of other programs in which the course is taught
Core Cadre member *(Later eliminated this step)
Campus/Academic deans
Curriculum Specialist, Dept. Of Curriculum and Instruction
A Curriculum specialist spent fulltime for one year reviewing all competencies submitted. He met individually with faculty and worked with them as necessary

Phase 2: DO

The planning step and the doing step naturally overlapped. As we continued to plan, we began to do. As competencies were developed and approved, they began to be implemented. The competencies for each vocational program are a part of the program information brief, a one or two sheet synopsis of program requirements and costs. Course competencies and subcompetencies are distributed to students by instructors as a part of, or in addition to, their course syllabus. Since the 1993 year, students have been made aware of the college's competency-based curriculum at the new-student orientation sessions.

Phase 3: CHECK has four steps:

***Trans: Four Step Assessment Plan***

The first Phase or step is:
Pre-Assessment (for all students):
The techniques used for pre-assessment include
ACT/SAT
ASSET
High school articulation
Previous college credit
Other

The second Phase is: Student Course Assessment:

***TRANS: Course Matrix***

The techniques used to assess the course competencies include the following: (These are listed across the top of the form.)

- ◊ Capstone project
- ◊ Group work
- ◊ Classroom assessment techniques (CAT)
- ◊ Simulation
- ◊ Interviews
- ◊ Tests
- ◊ Oral reports
- ◊ Daily assignments
- ◊ Other

The course competencies would be listed down the left. You would fill in Course Title and Acronym under the Course Competency title. Each faculty member completed this form for each course they teach.

This course matrix form is available on the Local Area Network. Completed course matrixes for each course taught in a department can be found in the Dean's office. An instructor can request the forms for a class they are teaching and see how other individuals are assessing the competencies required for that course.

In some cases at the end of the course, the students are given a copy of the competencies and asked to rate how well they knew each competency before the course and after the course. This self-perception technique could be listed as an "other" on the course matrix.

Phase 3 - Program Assessment

***TRANS: Program Matrix***

In June, 1992, we began the process of writing Program Competencies. Members of the Cadre has the responsibility to meet with program chairs to explain the purpose and process for writing program competencies. It was up to the cadre member and the program chairs to identify who would write and validate the competencies. There was to be no compensation or release time given for development of program competencies.

Program competencies were to be written, validated, and have the sign off completed by the end of summer term. Exceptions would be made for programs not operating during summer term.

The Program Assessment techniques included:

Exit exam
Capstone project
Capstone course
Portfolio
Student satisfaction survey (also available on the LAN)
Articulation
Advisory committee
Agency accreditation
Other

The program competencies would be listed down the left and the means of assessment would be checked for each competency. The Program Competency Grid is available on the Local Area Network. Also the programs competencies for each individual program can be accessed and printed from the network.

Phase 4 - Post DMACC Assessment

This phase includes the following techniques:

State licensure exams
Graduate survey (basic survey available on LAN)
Employer survey (basic survey available on LAN)
Focus groups
Transfer student performance
Other

STEP 4 - ACT

Step four is an ongoing process. Since the first course competencies were developed, the processes of analyzing data, determining implications for teaching and learning, and planning for improvement have been and continue to take place.

**Faculty Acceptance/barriers**

I would like to make just a few comments regarding faculty acceptance/barriers. When the assessment project was initiated, it was met with considerable resistance by the vocational/technical faculty. Some of the reasons were:

Many faculty had been with DMACC for a number of years and had been involved in a project of writing behavioral objectives several years earlier. These objectives after being written and turned in to administration had never been seen again. Nothing had been done to incorporate them into the curriculum.

Many faculty felt we were writing competencies just to meet a state requirement and in preparation for NCA evaluation. They also felt that after the NCA visit - Fall 1995 - competencies would not be heard of again.

A third reason for resistance was time/compensation. When did administrators expect us to do all of this "extra" work. What was the plan to compensate those who did the writing/work in contrast to those who did nothing toward this effort?

Another question- though not as common with the voc/tech faculty as with the arts & science faculty was "What about teacher 'autonomy' and 'academic freedom'?" No one else should tell me what I am to teach in my class.

As stated earlier, we stressed all the way that we were not telling faculty how to teach or in what order. Also, the competencies listed were the minimum of what was to be covered in a particular course.

On the other hand, there were those who were open to new ideas and challenges. They felt this was an opportunity to improve the curriculum we offered to students. They viewed having consistency in what would be covered in each course as a positive change.

Also, some programs such as nursing were already competency based.

Now, five and one-half years later in 1996, faculty are "sold" on our assessment plan and competencies/subcompetencies.

CLOSING COMMENTS

Today at DMACC, depending upon the course/program, we are in various stages of the cycle. Our goal is each course will be reviewed at least once every three years. In many areas, due to changes in technology and so on, yearly review is necessary.

I would suggest that those of you who are in the beginning stages of an assessment project do two things: 1) color code your forms, and 2) Date everything.

TRANS - Competency Based Education -- The Process

TRANS--Three Year Plan - Headings
Goal, Audience, method, when, who

TRANS--Example of a Goal

TRANS--Terms listed

TRANS--DMACC Competency Based Education with 3 arrows

TRANS--Planning Form for Writing Competencies/Subcompetencies.

TRANS--Cover Sheet-approvals

TRANS--Course Information Form - OFFC337

TRANS--Four Step Assessment Plan

TRANS--Course Matrix

TRANS--Program Matrix

TRANS--(Return to Four Step Assessment) Post DMACC Assessment

WRAPUP/CLOSING

The network of faculty working to design and evaluate assessment techniques and to improve instructional methodologies and curricula continues to expand. DMACC's assessment plan has provided the basis for instructional improvement and curriculum renewal while improving opportunities for student learning success. Administrators, faculty and staff are committed to improving student performance and the teaching learning process by utilizing the Educational Improvement Model.

Having course competencies for all courses has helped with articulation with both high schools and four-year institutions. They have also proved invaluable for student advising.

In summary, the student assessment process at DMACC was and continues to be a faculty-driven process. A copy of our assessment plan is in the Resource Room.

We hope you come away with at least one useful thing you can take back to your campus and thank you for coming. If you have any questions please come up and see us.

ATTACHMENT: Student Academic Achievement Assessment Plan